ABSTRACT

A method of enhancing the operation of diesel fuel combustion systems in a combustion system includes supplying a fuel and additive that includes a manganese compound to a diesel fuel combustion system. The fuel is then combusted in the combustion chamber to produce at least one byproduct including the manganese compound. The manganese compound is supplied in an amount effective to complex with the combustion byproduct. The diesel fuel combustion system operation is enhanced by improving the attributes of lubricating oil loaded with the combustion byproduct soot particles.